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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Masahiro Sawada

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2048

757

7590

05/22/2006

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EXAMINER

DESIR, PIERRE LOUIS

ART UNIT

PAPER NUMBER

2617

DATE MAILED: 05/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/082,797	<b>Applicant(s)</b> SAWADA ET AL.	
	<b>Examiner</b> Pierre-Louis Desir	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 08 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 22-37 and 39-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 22-37 and 39-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/08/2006 has been entered.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1-37, and 39-48 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Objections***

3. Claims 22, and 42 are objected to because of the following informalities: "is situation" should be "is situated" (as related to claim 22) and "transpiration" should be "transportation". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

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international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 22-23, and 25-36, 42-46 are rejected under 35 U.S.C. 102(e) as being anticipated by Drury et al. (Drury), U.S. Patent No. 6707421.

Regarding claim 22, Drury discloses a location management apparatus which maintains a location of a mobile station within a mobile communication network for wirelessly communicating with the mobile station (see abstract), comprising: a communication control configured to communicate with the mobile station using the mobile communication network (see col. 1, lines 65-67, and col. 2, lines 1-10), and receive from the mobile station an identification of a transportation on which the mobile station is carried (i.e. knowing that the driver information system includes a handset module, and a communication module which make up a modular wireless telephone which need to be authenticated, as known in the art, before it can be used. One skilled in the art would unhesitatingly conceptualize that when the server obtains the vehicle identification, it inherently obtains the modular wireless telephone identification. In addition, when the server obtains the vehicle identification from the in-vehicle system, it can identify not only the vehicle but also the modular wireless telephone/mobile station) (see fig. 2, abstract and col. 11, lines 50-60, col. 36, lines 48-53); a location information storage in which the location of the mobile station is identifiable with reference to the identification of the transportation notified by the mobile station (i.e. Drury discloses an information management system includes and information a storage for a unique identification of the information system; and, this identification is passed to the server. It is also worth noting when the in-vehicle system (i.e. traffic control device) transfers the unique identification of the vehicle to the server, it is used by the server to access information such as the make, model, and

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color of the vehicle. Furthermore, Drury discloses a mobile communication system, which includes a cellular transceiver coupled to a cellular antenna, where cellular phone calls can be placed using handset; therefore, one skilled in art would immediately conceptualize that for cellular phone calls to be feasible, the mobile station has to authenticate itself to the server; thus the server obtains and stores not only the car identification information, but also the cellular phone, which is part of the system) (see fig. 2, abstract and col. 11, lines 50-60, col. 36, lines 48-53); a transportation location finder configured to identify a communication area where the transportation is situated, based on movement information obtained from a traffic control that manages an operation of a transportation system including the transportation on which the mobile station is carried (i.e. while traveling toward a destination, the in-vehicle system tracks an estimated location of the vehicle) (see col. 9, lines 15-16); and a paging control configured to, when a call for the mobile station comes, access the location information storage so as to find the communication area where the transportation is situated, determined by the transportation location finder and cause a paging signal transmitted within the communication area (see col. 6, lines 1-7, and col. 7, lines 52-63).

Regarding claim 23, Drury discloses an apparatus (see claim 22 rejection) wherein the communication area is a paging area (i.e., Drury discloses that the database includes information related to roads in the road network (i.e., paging network) within a first geographic area) (see col. 2, lines 59-62).

Regarding claim 25, Drury discloses an apparatus wherein the transportation location under determines the communication area where the transportation is situated, using a

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geographical location of the transportation contained in the movement information (see col. 24, lines 47-50).

Regarding claim 26, Drury discloses an apparatus wherein the transportation location finder is activated to find the communication area where the transportation is situated when a communication when a call is received for the mobile station being carried on the transportation (i.e. the in-vehicle system initiates communication session with server by placing a cellular telephone call to a number associated with the server system. The in-vehicle system then transmits the location data and the destination specification to the server as a response to an inherent query from the server) (see claim 1 rejection reasoning, fig. 3, col. 12, lines 1-3, and col. 18, lines 52-64).

Regarding claim 27, Drury discloses an apparatus (see claim 22 rejection) wherein the location information storage and the transportation location finder are located on different servers functionally connected to each other (see col. 6, lines 36-45).

Regarding claim 28, Drury discloses an apparatus (see claim 22 rejection) wherein the location information storage comprises a first table in which the locations of the mobile stations are identified with reference to the transportation on which some of the mobile stations are being carried and communication areas where the other of the mobile stations are situated, (see abstract, col. 2, line 59 through col. 3, line 18), and a second table in which locations of the transportation are identified with reference to communication areas where the transportations are situated (see abstract, col. 2, line 59 through col. 3, line 18).

Regarding claim 29, Drury discloses an apparatus (see claim 28 rejection) wherein the second table is updated by an update request from the transportation location finder receiving the movement information of the transportation (see col. 9, lines 15-16, and col. 21, lines 14-16).

Regarding claim 30, Drury discloses an apparatus (see claim 22 rejection) further comprising a receiver that receives travel information from the mobile station, which transmits the travel information in response to the paging signal initiated by the location management apparatus (i.e., GPS receiver) (see col. 7, lines 17-22).

Regarding claim 31, Drury discloses an apparatus (see claim 30 rejection) wherein the travel information comprises a geographical location of the mobile terminal (see col. 7, lines 17-22), a traveling direction thereof and a traveling speed thereof (see col. 5, lines 33-37).

Regarding claim 32, Drury discloses an apparatus (see claim 25 rejection) further comprising transportation travel information storage accessible by the transportation location finder, which maintains geographical locations of the transportations (see abstract, col. 2, line 59 through col. 3, line 14, and col. 17, lines 41-55).

Regarding claim 33, Drury discloses an apparatus (see claim 32 rejection) wherein the transportation travel information storage stores travel statuses of the transportations, wherein the travel status comprises a delay in schedule (see col. 7, lines 52-57).

Regarding claim 34, Drury discloses an apparatus (see claim 33 rejection), wherein the travel status of the transportations are receivable by the location management apparatus (see col. 7, lines 52-57).

Regarding claim 35, Drury discloses an apparatus (see claim 32 rejection) further comprising a schedule information storage that stores travel schedules of the transportations,

wherein based on information stored in the transportation travel information storage and the schedule information storage, the location management apparatus determines a future location of a transportation (see col. 7, lines 52-63).

Regarding claim 36, Drury discloses an apparatus (see claim 35 rejection) wherein the travel schedules of the transportations are receivable by the location management apparatus (see col. 7, lines 52-63).

Regarding claim 42, Drury discloses a mobile station registrable with a wireless communication network that comprises at least one communication area (see abstract, fig. 5, col. 12, lines 57-67), comprising: a location signal receiver configured to receive from the wireless communication network a location signal indicative of an identification of an communication area in which the mobile station is situated (see abstract, col. 2, line 59 through col. 3, line 14, and col. 17, lines 41-55), and receive an identification signal from a transportation which comprises an identification of the transportation (i.e., the system include a storage for a unique identification of the information system, which includes information the make, model, color of the vehicle) (see abstract, and col. 36, lines 50-53); a first registration control responsive, absence the identification signal, to the location signal to transmit to the wireless communication network a first registration request which comprises the identification of the communication area, whereby the mobile station becomes locatable with respect to the communication area (see col. 6, lines 1-7, and col. 7, lines 52-63); and a second registration control responsive to the identification signal to disable the first registration control and transmit a second registration request which comprises the identification of the transportation, whereby the mobile station becomes locatable with respect to the transportation (see col. 9, lines 15-16).



Regarding claim 43, Drury discloses a location information provider comprising: a query receiver configured to receive an inquiry from a user asking a location of a mobile station (i.e., GPS receiver) (see col. 7, lines 17-22); a paging control responsive to the inquiry to cause the mobile station to be paged and receive location information of the mobile station from the mobile station (see col. 6, lines 1-7, and col. 7, lines 17-63); and a transmitter configured to transmit to the user a response which comprises at least a part of the location information (see col. 6, lines 1-7, and col. 7, lines 17-63).

Regarding claim 44, Drury discloses a location information provider (according to claim 43), wherein the location information comprises a geographical location of the mobile station (see col. 7, lines 17-22).

Regarding claim 45, Drury discloses a location information provider (according to claim 43), wherein the location information comprises a direction in which the mobile station is moving and a speed at which the mobile station is moving (see col. 5, lines 33-37).

Regarding claim 46, Drury discloses a location information provider (according to claim 43), wherein the response comprises an indication as to whether or not the mobile station is situated on a transportation (see fig. 2, abstract and col. 11, lines 50-60, col. 36, lines 48-53).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 24 and 37-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Drury in view of Ushiki et al. (Ushiki), Pub. No. US 20010049282.

Drury discloses an apparatus as described above (see claim 22 rejection).

Although Drury discloses an apparatus as described, Drury does not specifically disclose an apparatus wherein the location information storage is updated by a registration request from the mobile station which identifies either a communication area which the mobile station enters or a transportation on which the mobile station is carried.

However, Ushiki discloses that it is well known to have a mobile communication system wherein a location of a mobile station stored in the location information storage is updated by a registration request from the mobile station, which identifies either a communication area (see abstract and page 1, paragraphs 6-7). Also since the vehicle is being identified by the unique identification code (see abstract), one skilled in the art would unhesitatingly conceptualize that when the location of the mobile station is updated, inherently, the transportation and the mobile station will be identified.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. A motivation for doing so would have been to provide an accurate up-to-date location information database.

Regarding claim 39, Drury discloses a mobile station (see claim 42 rejection) further comprising a positioning device that determines a travel status of the mobile station, which comprises a geographical location of the mobile station (see col. 7, lines 52-63).

Regarding claim 40, Drury discloses a mobile station (see claim 39 rejection) wherein the travel status further comprises a traveling speed of the mobile station and a traveling direction thereof (see col. 5, lines 33-37).

Regarding claim 41, Drury discloses a mobile station (see claim 39 rejection) further comprising a transmitter that transmits the travel status in response to a paging signal (see col. 7, lines 52-63).

8. Claims 47-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Drury in view of Kinnunen et al. (Kinnunen), U.S. Patent No. 6813501.

Regarding claim 47, Drury discloses a location information provider comprising: a query receiver configured to receive an inquiry from a user asking a location of a mobile station see col. 7, lines 17-22); a memory that stores time schedules of transportations (see col. 7, lines 52-57); a location queryer responsive to the inquiry to find if the mobile station is situated on a transportation (see col. 9, lines 15-16).

Although Drury discloses a location information provider as described, Drury does not specifically disclose a location information provider comprising a location estimator configured to determine, if the mobile station is situated on a transportation, a future location of the mobile station by referring to the time schedules stored in the memory; and a transmitter configured to transmit to the user a response which comprises the determined future location of the mobile station.

However, Kinnunen discloses an information providing system wherein the location information generated is an estimated location information based on future location, and the information is provided to a network (see col. 15, lines 54-65).

Therefore it would have been obvious to one of ordinary skill in the art to combine both teachings in order to arrive at the claimed invention. A motivation to do so would have been to make the system flexible by making it based on not just actual location information.

Regarding claim 48, Drury discloses a location information provider (see claim 47 rejection) wherein the location queryer also finds, if the mobile station is situated on a transportation, a current location of the transportation and an identification of the transportation, and the response comprises the current location of the transportation and the identification of the transportation (see abstract, col. 2, line 59 through col. 3, line 14, and col. 17, lines 41-55, and col. 36, lines 50-53).


### ***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pierre-Louis Desir whose telephone number is (571) 272-779. The examiner can normally be reached on Monday-Friday 8:00AM- 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Pierre-Louis Desir  
05/15/2006

  
**JOSEPH FEILD**  
**SUPERVISORY PATENT EXAMINER**